

CLAIMS

1. An apparatus (1) for a sorting system comprising an activating member (2), a fastening bracket (3), and a discharge arm (4) which at an end part (5) is pivotally connected with the fastening bracket (3) at a side (6) of a conveyor (7), where said
5 discharge arm (4) by means of said activating member (2) is adapted for being swung between a passive position (9) approximately parallel to said side (6) of the conveyor (7) and a number of active angular positions (8) in relation to the conveying direction (A) of the conveyor (7), characterised in that the activating member (2) is constituted by an electrically driven stepping motor or servomotor having a control
10 unit being adapted for determining a pattern of motion and/or speed profile of the discharge arm (4).
2. An apparatus (1) according to claim 1, characterised in that said control unit is adapted for receiving at least one control signal from a number of sensors (16)
15 being adapted for determining the lateral and longitudinal position of an item (11) on the conveyor (7), and which are operatively connected with the activating member (2).
3. An apparatus according to claims 1-2, characterised in that said sensors (16) are constituted by photoelectric cells placed above and/or along the conveyor (7).
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4. An apparatus according to claims 1-2, characterised in that said sensors (16) are constituted by laser sensors placed above and/or along the conveyor (7).
5. An apparatus according to claims 1-2, characterised in that said sensors (16) are constituted by photoelectric cells and/or laser sensors placed above and/or
25 along the conveyor (7).
6. An apparatus according to claims 1-5, characterised in that said stepping motor or servomotor (2) comprises a pre-programmed control unit being adapted for
30 utilizing said control signal from the sensors (16) for determining a pattern of motion and/or a speed profile of the discharge arm (4).

7. An apparatus according to claims 1-6, characterised in that the discharge arm (4) is provided with a slightly spoon-formed front (12).

5 8. A method for sorting by means of an apparatus (1) according to the claims 1-6, characterised in that the sorting of items (11) on the conveyor (7) is by means of the following steps:

- 10 - the items (11) are either weighed and/or quality/type graded before they are placed on the conveyor (7), or weighed and/or quality/type graded on a first part of the conveyor (7),
 - the items (11) pass the sensors (16) placed above or along the conveyor (7);
 - 15 - the sensors (16) register the size and/or lateral and longitudinal position of the items (11) on the conveyor (7), and at the same time, the sensors (16) give out a control signal to the control unit of the apparatus (1),
 - 20 - before the items (11) reach the discharge arm (4), the discharge arm (4) is turned from a passive position to an active angular position (8) in relation to the conveying direction (A) of the conveyor (7),
 - the discharge arm (4) leads the items (11) to a predetermined discharge position (B, C, D) along said side (6) of the conveyor (7).
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9. A method according to claim 8, characterised in that a number of apparatuses (1) being arranged at a row along said side (6) of the conveyor (7) are operated by said sensors (16) and by said control unit as a common control unit.